BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures, and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.	Rulemaking 14-08-013 (Filed August 14, 2014)

OPENING COMMENTS OF SOLARCITY CORPORATION ON THE ASSIGNED COMMISSIONER'S RULING REGARDING DRAFT GUIDANCE FOR USE IN UTILITY AB 327 (2013) SECTION 769 DISTRIBUTION RESOURCE PLANS

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SolarCity Corporation ("SolarCity") respectfully submits these comments on Commissioner Picker's November 17, 2014 Assigned Commissioner's Ruling (ACR) providing draft guidance to the utilities regarding their distribution resource plans (DRPs) pursuant to Public Utilities Code Section 769.

I. DESCRIPTION OF SOLARCITY

SolarCity is California's leading full service solar power provider for homeowners and businesses, a single source for engineering, design, financing, installation, monitoring, and support. The company provides cost effective financing that enables customers to eliminate the high upfront costs of deploying solar. SolarCity has more than 4,000 California employees based at 30 facilities around the state, and has provided clean energy services to more than 168,000 customers nationwide.

In an earlier stage of this proceeding SolarCity filed initial and reply comments, in response to the questions posed in the August 14, 2014 Order Instituting Rulemaking (OIR) regarding policies, procedures and rules to guide California investor-owned electric utilities (IOUs) in developing their Distribution Resources Plan Proposals.

II. INTRODUCTION

Assembly Bill 327, signed into law in 2013, directs the utilities to develop and submit DRPs no later than July 1, 2015. Pursuant to statute, these DRPs are to do the following:

> (1) Evaluate locational benefits and costs of distributed resources located on the distribution system. This evaluation shall be based on reductions or increases in local generation capacity needs, avoided or increased investments in distribution infrastructure, safety benefits, reliability benefits, and any other savings the distributed resources provides to the electric grid or costs to ratepayers of the electrical corporation.
>
> (2) Propose or identify standard tariffs, contracts, or other mechanisms for the deployment of cost-effective distributed resources that satisfy distribution planning objectives.
>
> (3) Propose cost-effective methods of effectively coordinating existing commission-approved programs, incentives, and tariffs to maximize the locational benefits and minimize the incremental costs of distributed resources.
>
> (4) Identify any additional utility spending necessary to integrate cost-effective distributed resources into distribution planning consistent with the goal of yielding net benefits to ratepayers.
>
> (5) Identify barriers to the deployment of distributed resources, including, but not limited to, safety standards related to technology or operation of the distribution circuit in a manner that ensures reliable service.

SolarCity is pleased with the direction established in the ACR, which embraces the idea that DERs represent a suite of assets and technologies that have the potential to provide an array of services that can benefit retail customers and, increasingly, distribution planners and grid operators. The importance of this effort cannot be understated as it represents, in our view, a first of its kind formal planning process to fully evaluate, in a systematic and holistic way, the vast and transformative potential of DERs in the context of utility distribution planning and operations.

SolarCity is highly supportive of the ACR. As discussed further below, SolarCity is strongly supportive of the guidance the ACR provides to the utilities regarding the need to effectively plan for the continued growth of DER, to identify optimal locations for DER

deployment, and to make investments in their distribution systems accordingly. We are also in full agreement with the ACR's guidance regarding the provision of feeder level data to developers. We also encourage the continuation of stakeholder meetings under the auspices of the More Than Smart initiative to help further guide DRP development.

Regarding specific modifications or refinements to the draft guidance, SolarCity offers a number of recommendations. First, the optimal location benefit analysis should be expanded to reflect a broader set of elements, as further enumerated below. Furthermore, this analysis should focus on highlighting relative locational values across locations, rather than precisely calculating the accurate locational value. SolarCity also encourages the utilities, in developing their respective forward looking integration capacity analyses, to look over a 10-year time horizon to ensure consistency with the time horizons typically used in the context of distribution planning.

III. DISCUSSION

a. Anticipating DER growth and making distribution system investments accordingly is a critical element of the DRPs

California has achieved considerable momentum in the deployment of DERs, through highly successful programs like the California Solar Initiative and Net Energy Metering. With the reauthorization of the Self Generation Incentive Program pursuant to Assembly Bill 861 (2014) combined with other enabling policies (including increased utilization of smart inverters), SolarCity believes the move toward a more distributed energy future, while not guaranteed, looks increasingly likely. As increasing amounts of distributed resources are deployed, however, this momentum could be undermined if capacity constraints on the distribution system become bottlenecks, either preventing additional deployments outright, or causing significant cost increases and delays. To address this possibility, SolarCity strongly supports proactive investments in distribution capacity to ensure future DER deployments can readily move forward.

To that end, the proactive identification of no-regret and low-regret investments in distribution system infrastructure through scenario analysis, based on projections of high, medium and low DER deployments across the utilities' systems, is an important element of the DRPs. These projections, including an assessment of where systems are being deployed at the

feeder level, should be updated on a regular, basis, at least once a year. SolarCity believes this conceptual approach is highly consistent with the goals of AB 327, including to ensure that "distributed generation continues to grow sustainably." While this statutory language relates specifically to the NEM successor tariff, the goal of sustainable growth can only be achieved if customers continue to have the practical ability to interconnect their systems, which in turn requires that the distribution system be sufficiently robust to accommodate these systems.

b. The provision of feeder level data is fundamental to enabling developers to target and optimally deploy DERs.

SolarCity also wishes to specifically encourage the utilities to make feeder level data available to DER providers/operators. As described in the ACR this information includes coincident and non-coincident peaks, capacity levels, outage data, and projected utility investment. This type of information, updated on a regular and frequent basis, plays a central role in determining where on the distribution system there is available capacity to accommodate additional DERs, but also, and perhaps more importantly, where the deployment of DERs can provide the most value to address system constraints and/or obviating the need for other investments. Ultimately, this information, combined with effective mechanisms to recognize and compensate DERs, is fundamental to the creation of a viable market in which DERs can provide grid services.

c. The optimal location analysis should reflect a broader set of value drivers and provide insight into relative benefits.

SolarCity fully supports the requirement to calculate the full set of locational value provided by DERs. Locational value should include both direct utility avoided costs, as well as additional benefits that are quantifiable but do not necessarily result in a reduction of current utility costs. Such benefits could be either quantifiable benefits to society, or avoided costs that a utility would have to make in the future to reach an as yet not reached level of service (such as increased reliability performance). To support the identification of a full list of locational value, SolarCity submits the following components that should be considered in performing the optimal location analysis to ensure the results are robust and reflect the full range of avoided costs and benefits associated with DER deployment.

- Avoided Energy and Losses

- Avoided Generation Capacity investments (including Local Resource Adequacy value)
- Avoided transmission capacity costs
- Avoided Distribution Capacity investments
- Power Quality
    - Avoided utility investments related to power quality
    - Public benefit from improved power quality
- Reliability
    - Avoided utility investments and expenses related to routine outages
    - Public benefit from improved reliability
- Resiliency
    - Avoided utility investments and expenses related to major outage events
    - Public benefit from improved resiliency
- Safety
    - Public benefit from improved safety
- Local emissions
    - Improved public health due to reduced emission of criteria pollutants

Note that this list of avoided costs and benefits excludes some components of value that are readily identified by contemporary cost and benefit analyses, including Renewable Portfolio Standard offset, greenhouse gas reduction benefits, wholesale ancillary services, fuel price hedge, market-price suppression, economic jobs benefits, bulk system stability, and investment option value. While SolarCity fully supports the recognition of DER's capability to deliver value in these buckets, these avoided costs and benefits that do not differ by location may not be necessary to evaluate in this analysis that intends to identify value relative to location. Keeping these benefits that do not vary by location may simplify the potential analysis and confine it to only those items that drive understanding of optimal locations. In short, SolarCity believes the analysis should be conducted and the results presented to highlight the relative differences in locational value from deploying DERs at different locations, rather than focus on definitively identifying the precise locational value by location (since this precision will be difficult to obtain or agree upon).

Furthermore, as drafted, the guidance appears to leave open the interpretation of optimality as a binary determination, where a DER deployment is either in an optimal location or it is not. However, given the range of avoided costs and benefits and the range of scenarios that will be considered, there is unlikely to be a clear line of which locations are optimal and which

are not. Rather, identifying a continuum that identifies the spread of locational values may offer more value to future policy and planning activities.

d. As the utilities develop their DRPs, they should continue to work with stakeholders through the "More Than Smart" initiative.

As described in the Ruling, a highly effective set of stakeholder meetings, convened under the auspices of the More Than Smart effort, were invaluable in helping inform this process. SolarCity has been an active participant in those meetings and can attest to the important role they played in allowing parties to work through various issues. SolarCity recommends these stakeholder meetings be continued as the utilities begin the process of developing their respective DRPs. Given the complexity of the issues to be addressed, ongoing stakeholder input and feedback will be tremendously important.

III. CONCLUSION

SolarCity commends Commissioner Picker for this ACR, which we believe provides an excellent framework to guide the utilities' development of their DRPs. We look forward to continuing to work collaboratively with the Commission, the utilities and other stakeholders on this important effort.

Respectfully submitted at San Francisco, California on December 12, 2014,

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